

## Remarks

### Amendments To The Specification:

The amendments to the specification which the Applicants request entry herewith are primarily to correct obvious errors, and/or to provide consistency between annotations for identifying the same item in different drawings. However, an additional amount of descriptive text is also requested to be entered into the SUMMARY section of the specification on page 10, line 3 and page 12, line 6. This additional text merely summarizes subject matter from other portions of the originally filed specification so that the SUMMARY section better reflects the aspects of the invention for which patent protection is being requested. This additional summarizing text introduces no new matter to the specification. However, it is believed important to provide this additional descriptive text in that for such a lengthy specification as the present application has, a more easily located description for better understanding the claims is in the public interest.

### Specification Amendments For Adding Text That Was In The U.S. Provisional From Which The Present Application Claims Priority:

Additional amendments to the specification include the following paragraphs which were in the U.S. Provisional Patent Application No. 60/025,855 filed Sept. 9, 1996 from which the present application claims priority. In particular, the text for which entry is requested is in a figure (Fig. 4) of this provisional, the text was removed when preparing subsequent versions of the drawings, and was not incorporated into the text of the PCT application from which the present application is the U.S. national filing. Note, however, that Fig. 4 of the above-identified provisional corresponds to Fig. 8 in the present application. It is requested that this text now be incorporated into the specification. The paragraphs referred to here are duplicated hereinbelow. For the Examiner's convenience, a copy of Fig. 4 from the above-identified U.S. Provisional Patent Application also accompanies these remarks, and the text of this figure corresponding to the text whose entry is requested in the present application is highlighted in the figure accompanying (Fig. 4).

#### First requested new text from Provisional Fig. 4 (added on page 53, line 10):

"In one embodiment, such a distance model may perform the following steps:

- (a) Determine a minimum distance between the target MS and each BS using TOA, TDOA, signal strength on both forward and reverse paths;

- (b) Generates an estimated error;
- (c) Outputs a location hypothesis for estimating a location of a MS: each such hypothesis having: (a) one or more (nested) location area estimates for the MS, each location estimate having a confidence value (e.g., provided using the estimated error) indicating a perceived accuracy and (b) a reason for both the location estimate (e.g., substantial multipath, etc) and the confidence."

**Second requested new text from Provisional Fig. 4 (added on page 53, line 16):**

"In one embodiment, such a stochastic signal model may outputs location hypotheses determined by one or more statistical comparisons with loc sigs in the Location Signature database 1320 (e.g., comparing MS location signals with verified signal characteristics for predetermined geographical areas)."

**Third requested new text from Provisional Fig. 4 (added on page 53, line 24):**

"In one embodiment, an adaptive learning model such as a model based on an artificial neural network may determine an MS 140 location estimate using base station IDs, data on signal-to-noise, other signal data (e.g., a number of signal characteristics including, e.g., all CDMA fingers). Moreover, the output from such a model may include: a latitude and longitude for a center of a circle having radius R (R may be an input to such an artificial neural network), and is in the output format of the distance model(s)."

**Fourth requested new text from Provisional Fig. 4 (added on page 54, line 3):**

"In one embodiment, such a location base station model may perform the following steps:

- (a) If an input is received then the target MS 140 is detected by a location base station 152 (i.e., a LBS being a unit having a reduced power BS and a MS).
- (b) If an input is obtained, then the output is a hypothesis data structure having a small area of the highest confidence.
- (c) If no input is received from a LBS then a hypothesis having an area with highest negative confidence is output."

**Fifth requested new text from Provisional Fig. 4 (added as second paragraph in the new text starting on page 54, line 8):**

"In one embodiment, such a distributed antenna model may perform the following steps:

- (a) Receives input only from a distributed antenna system.
- (b) If an input is received, then the output is a lat-long and height of highest confidence."

**Sixth requested new text from Provisional Fig. 4 (added as the fourth paragraph of the new text on page 54, line 8):**

"In one embodiment, such a home base station model may perform the following steps:

- (a) Receives an input only from the Public Telephone Switching Network.
- (b) If an input is received then the target MS 140 is detected by a home base station associated with the target MS.
- (c) If an input is obtained, then the output is a hypothesis data structure having a small area of the highest confidence.
- (d) If no input and there is a home base station then a hypothesis having a negative area is of highest confidence is output."

**Seventh requested new text from Provisional Fig. 4 (added as the last sentence of the new text starting on page 54, line 3):**

"In one embodiment, such a mobile base station model may provide output similar to the distance FOM 1224 described hereinabove."

**Claim Amendment Remarks:**

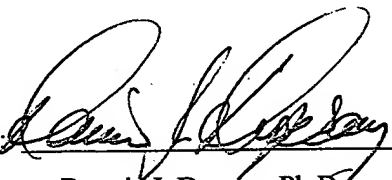
Applicants have cancelled all pending claims and provided new Claims 221-295. Note, that Claim 221 is similar in some respects to Claim 1 of U.S. Patent No. 6,321,092, filed Sept. 15, 1999 which claims the benefit of U.S. Provisional Application No. 60/106,816 filed Nov. 3, 1998. However, the present application is a U.S. National filing of PCT/US97/15892 filed September 8, 1997.

Application Serial No.: 09/770,838  
Document: "Preliminary Amendment"

Applicants request entry of all the amendments provided herewith, and reconsideration of the present application. It is believed that all pending claims are now in condition for allowance. Thus, it is requested that the Examiner contact the Applicant named below by phone if the Examiner determines that one or more of the claims are not allowable. Note that the Applicants have previously paid for 5 independent and 96 total claims prior to this Amendment and Response which totals fees of \$764 for claims.. The present Amendment and Response cancels all pending claims, and adds 75 total new claims (12 new independent claim and 63 new dependent) the fee for claims which totals \$495. Accordingly, there is an overpayment of \$269. Also included herewith is a check in the amount of \$200.00 for a two month extension and a corresponding petition under 37 C.F.R. 1.136(a). No other fees are believed due with this transmittal beyond those identified here.

However, if additional fees are due, then the Applicant respectfully requests notification of the Applicant named below so that any additional fees can be timely paid.

Respectfully submitted,

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